

**Notes from the Life Cycle and Portfolio Management Workshop
Amsterdam, 23 November 2005**

John Dyer
7 December 2005

Introduction

Urs Eppenberger, SWITCH

Urs Eppenberger of SWITCH opened the meeting with a short introduction to the concepts of Life Cycle and Portfolio Management (LCPM). In his presentation Urs made a comparison between the general approach of introducing a new service within the academic and research community with that of the commercial sector. In summary, our community could benefit from adopting some of the approaches to service lifecycles used in the commercial sector. Additionally NRENs could benefit from the synergy of working together in this area in a similar way to the benefits that accrue from the technical collaborations in TERENA.

Service life cycle can be defined as having four main phases:

1	Search	New possibilities are sought
2	Development	New Service is piloted and tested with small groups
3	Operation	Production quality service with full support
4	Phase Out	Service is taken out of service

<http://www.terena.nl/lcpm/200511-lcpm-intro.ppt>

Interests of Workshop Attendees

In order to bring some cohesion to the group, attendees were invited to introduce themselves giving an indication of their responsibilities and interests in LCPM related activities. From this it was possible to understand who would be interested in each of the phases.

	1	2	3	4	PR
Urs Eppenberger, SWITCH, CH	X	X	X		
Ann Harding, HEAnet, IE			X		
Walter van Dijk, SURFnet, NL		X	X		
Magnus Strømdal, UNINETT, NO	X	X	X		
Maurice van den Akker, SURFnet, NL		X			
Jari Miettinen, CSC/FUNET, FI		X	X	X	
John Chevers, DANTE			X		X
Gabriella Paolini, GARR, IT					
Federica Tanlongo, GARR, IT					X
Elise Roders, SURFnet, NL		X	X		
Helmut Sverenyák, CESNET, CZ	X	X			
Regina Fuchsová, CESNET, CZ		X	X		
Eva Kassenaar, SURFnet, NL		X	X		
Koen Schelkens, BELNET, BE	X	X	X	X	X
John Dyer, TERENA	X	X	X	X	
Alberto Perez, RED.ES/RedIRIS, ES			X	X	
Sabine Jaume – Rajaonia, GIP RENATER, FR	X	X		X	
Vanessa Pierne, GIP RENATER, FR					
Avgust Jauk, ARNES, SI	X	X	X	X	

Comparison of NRENs Service Level Agreements

Ann Harding, HEAnet

Ann Harding of HEAnet provided an overview of the proposed work item: "Comparison of NRENs Service Level Agreements (SLAs)". Ann started by asking the question: Why should we be interested in such an activity? It was clear from her presentation that there are many internal reasons (technical management such as the need to take measurements to plan for upgrades) and external reasons (in order to ensure we can satisfy external clients such as European projects and International collaborators). Best Efforts will no longer do.

It should be noted that there are two categories of SLA, those with the NRENs own service provider – the commercial network operators or DANTE and those that relate to the service that the NREN provides to its own users/clients. It was agreed that the comparisons made in the LCPM work would (initially) concern just the second type, the SLA that the NREN has with its users/clients. It was noted however that the two categories were interrelated and that all NREN user/client SLA can only be based on the levels of service that a committed to the NREN by its suppliers.

It was noted that having SLAs alone is not sufficient and NRENs need to clearly identify some dedicated resource (possibly split across existing staff members) to measure performance and enforce the requirements.

The deliverables identified for this activity are:

- Development of a Taxonomy of service types
- List of NRENs with SLAs for each service type
- A Framework for investigating the need for SLA provision
- A Framework for defining agreed service levels
- Identification of shared services which may need a shared SLA

It was pointed out that the TERENA Compendium would be a good starting point for collecting basic information. It was suggested that the group might consider requesting LCPM specific questions in future Compendium questionnaires. The question of where the dissemination of information on new service fit into the scheme was also raised. In the discussions that followed it was agreed that PR fell mostly in the phases 2 and 3. Although this might be perceived to be covered by the work of TF-PR, in fact it was rather narrower in scope than their activity area and more naturally falls into the scope of LCPM. It was agreed that there will need to be strong liaison between the two groups in this area.

Ann went on to illustrate what was being done in HEAnet Strategic Objective CS1: Monitoring Service Levels to Ensure Excellence by way of a case study. She mentioned the resources HEAnet had explored and items such as Key Performance Indicators and the tools they use.

<http://www.terena.nl/lcpm/200511-lcpm-sla.ppt>

Comparison of NREN service portfolios

Urs Eppenberger, SWITCH

Urs explained that the scope of service portfolios can be rather larger than expected – for instance; Sektornet in Denmark offers around fifty services to schools. The main motivation for comparing and sharing information on service portfolios is to take advantage of any synergies that can be found. These

synergies could include: Learning from each other (sharing ideas for new services); collaborative development and/or operation of the services (joint procurement, co-management); synchronised launch and shut-down of services (PR synergies).

The proposed activities in the activity are:

- Collecting information on the NREN service-portfolios from participants websites and the TERENA Compendium
- Defining a meaningful structure for the collected information
- Definition of a set of CPM related questions for future versions of the TERENA Compendium

There was some discussion on what mechanisms could be used for information collection and dissemination. Information collection could be organised through the polling NRENS, searching NREN websites or adding additional LCPM related questions to the TERENA Compendium questionnaire. Information dissemination can be achieved through the use of wikis, RSS feeds and LCPM web pages. There was a suggestion that information might even be added to the RIPE database.

<http://www.terena.nl/lcpm/200511-lcpm-comp-serv-port.ppt>

Exchange of ideas on delivering services

Magnus Strømdal, UNINETT

Magnus explained that the motivations for exchanging ideas of delivering services are: to catch new development, technology and customer requirement at the right time; to save costs and also to attempt to overcome the “not invented here” syndrome.

Magnus went on to explain the UNINETT measuring point initiative that will provide a comprehensive measurement infrastructure for their network. Performance can be measured between any two campuses on the UNINETT network reporting on parameters including: one way delay and packet loss; available bandwidth and variation of delay over distance. The initiative will allow UNINETT to have a detailed picture and allow them to understand the effects of introducing new technologies such as VOIP.

The UNINETT measuring point initiative is an idea that could be adopted by other NRENS and is an example of a technology that could be shared more easily should an ideas exchange mechanism is put in place.

The proposed areas for exchange of information & collaboration are:

- In the development of new services
- Identifying new user/client requirements
- Identifying levels of cooperation

<http://www.terena.nl/lcpm/200511-lcpm-exch-ideas.ppt>

Development of LCPM decision-making models and tools

Walter van Dijk, SURFnet

Walter explained the area that should be covered by Development of LCPM decision-making models and tools was that of business modelling, not that of

NREN funding models. Funding models are already reported in the TERENA Compendium. He expressed his hope that this LCPM activity would enable NRENs to learn from one another on topics such as: Acceptable Use Policies; Customer Segmentation; Tariff Models etc.

It was reported by one delegate that their tariff model is revised every five years, the reason being that their cost structure changes so markedly over that period. In discussions, it was agreed by several NRENs that even if direct charges are not currently levied on their users, it is good practice to have an understanding of what those tariffs might be.

The proposed deliverables for this activity are:

- Development of an LCPM White paper for this topic
- Documenting best practices for LCPM models within European NRENs
- Developing an "off the shelf" model for LCPM processes within an NREN

A major issue for LCPM will be to identify the correct contacts in the NRENs. These people should have managerial and decision making responsibility within their organisations.

<http://www.terena.nl/lcpm/200511-lcpm-models-tools.ppt>

General Discussions

In terms of tariff setting, it was pointed out that commercial carriers have whole conferences on the topic tariffs. The group discussion concluded that this is not what we want to achieve in the context of LCPM. The LCPM target should be to share experience, knowledge and best current practice in order to assist other NRENs in making progress. Elements of existing NREN tariff models include the strategy of adopting a distance independent tariff structure; tariffs based on delivered connection bandwidth etc. An important issue when charging tariffs to users is that NREN should be able to explain clearly the model adopted and what other models were considered. This is particularly important when models are changed.

In considering the business models for NREN services, it is also important to consider the "last mile", typically the responsibility of the campus. Without complete End-to-End connectivity of the appropriate type, users may not be able to access the desired services. There has an implication for SLAs.

It was noted that the nature of the organisational structure and the level of services delivered both have an impact on the tariff models adopted. Some NRENs provide a comprehensive package of value added services as part of the basic offering to users/clients, whilst others deliver connectivity.

National funding policy and competition from commercial Internet Service Providers (ISPs) will also have an impact on tariff models. In some countries academic and research users/clients are free to buy connectivity from wherever they wish. Now that ISPs are capable of delivering similar levels of basic connectivity as that offered by NRENs (specifically Gigabit Ether) it is vitally important that NRENs differentiate themselves sufficiently well making clear those additional services that commercial ISPs cannot deliver.

Definition of LCPM Work Items

The workshop attendees split into four groups to discuss the four individual topics presented above. The provisional list of work items and associated activity leaders were identified:

Work Area – Services Portfolios

The service portfolios of participating NRENs are analysed and compared. NRENs can find missing options for their own portfolio or detect that they offer even more than they thought. Some services might be jointly procured or co-managed as a result. Synchronised service launch (or shut-down) could offer PR synergies.

Coordinator - Urs Eppenberger (SWITCH)

Deliverables

1. *Service Categories*
Editor: Federica Tanlongo (GARR)
A document defines a useful list of service categories and types
Deadline: February 2006
2. *Service description template*
Editor: Helmut Sverenyák (CESNET), Koen Schelkens (BELNET)
For the collection of the NREN portfolios a template is specified
Deadline: February 2006
3. *NREN Portfolio Collection*
Editor: all participating NRENs
For each service in the portfolio of an NREN the following list of questions are of interest. In a first phase only the first four questions are dealt with.
 - *Category and Type*
 - *Who uses the service (customer segmentation)*
 - *Who is allowed to use the service (Acceptable Use Policy)*
 - *What tariff model is applied*
 - *How is the service promoted*
 - *How much is it used*
 - *Since when is it offered*
 - *What is the cost structure*
 - *Who requested the service**Deadline: May 2006 for an initial set of 3-5 NRENs*
Deadline: Include all participating NRENs by Dec 2006
4. *Presentation Structure*
Editor: open
The collected information needs to be presented
 - a. *understandable for persons not involved in portfolio management*
 - b. *analysable for LCPM people*
5. *Portfolio Section for the TERENA Compendium (provisional)*
Editor: open
The service section of the TERENA Compendium will be replaced by the list of service portfolios. The needed set of questions is worked out based on the experience during 2006.
Deadline: Set of Questions by February 2007
Deadline: Analysis of the answers by June 2007
6. *Analysis of the tariff models (provisional)*
Editor: open
The applied tariff models for the services are analysed. Although local situations may dictate the model it is helpful to know what

others have chosen and for what reason. In our world new tariff models for services need to be worked out every 3-5 years.

Work Area Comparison of Service Level Agreements

This work area looks at the area of Service Level Agreements and how they are currently offered by NRENs to their clients or users. It also aims to provide a best practice process for NRENs who are considering introducing SLAs to follow.

Coordinator - Ann Harding (HEAnet)

Deliverables:

- 1. Portfolio of NREN client/user SLAs*
- 2. Best Practice Process for developing an NREN client/user SLA.*

Actions for deliverables:

- 1. Portfolio of NREN client/user SLAs*
 - a. Definition of what is meant by an SLA (Ann Harding – HEAnet)*
 - b. Review and gathering of questions for NREN information collection*
 - c. Information collection from participating NRENs (All participating NRENs)*
 - i. Does the NREN currently offer an SLA for any services?*
 - 1. To whom are these agreements offered?*
 - 2. What are the service terms of these agreements?*
 - 3. How is compliance measured?*
 - 4. Are there any actions resulting from non-compliance?*
 - ii. Does the NREN currently offer a less formal agreement for any services?*
 - 1. To whom are these agreements offered?*
 - 2. What are the service terms of these agreements?*
 - 3. How is compliance measured?*
 - 4. Are there any actions resulting from non-compliance?*
 - iii. Is the NREN considering offering an SLA for any services?*
 - 1. To whom would these agreements be offered?*
 - 2. What service terms are being considered?*
 - 3. How does the NREN plan to measure compliance?*
 - 4. Are there any planned actions resulting from non-compliance?*
 - d. Information collection of publicly available material from non-participating NRENs (Ann Harding – HEAnet)*
 - i. Does the NREN currently offer an SLA for any services?*
 - 1. To whom are these agreements offered?*
 - 2. What are the service terms of these agreements?*
 - 3. How is compliance measured?*
 - 4. Are there any actions resulting from non-compliance?*
 - e. Categorise information received according to Service Categories deliverable from Work Area Service Portfolios.*

2. Best Practice Process for developing an NREN client/user SLA.

- f. Selection of a sample of participating NRENs with SLAs*
- g. Selection of a sample of participating NRENs considering SLAs*
- h. Description of the processes followed by sample NREN case studies*
- i. Abstraction of particular case studies into Best Practice Process*
- j. Trial and review of Best Practice Process (An ideal rather than a required action).*

Work area exchange of ideas on delivering services

This work area looks at new technology and customer requirements for new services, and how to deliver the new services to the customer.

Coordinator - Magnus Strømdal (UNINETT)

Deliverables:

- 1. Identify new service ideas*
 - Customer requirements*
 - New technology*
 - Cooperation with other Task Forces and other technology research activities*
 - 2. Exchange of ideas on new services and how to deliver the service*
 - Host "BOF" sessions on new service ideas on TNC (or other conferences)*
 - Common format and language for documentation*
 - Marketing the idea of co development and co delivering*
 - How to kill some of the "not invented here" syndrome*
 - 3. Identify examples on co development of new services and co-delivery of new services*
 - Co development between NRENs*
 - Co development between NREN and customer*
 - Co development among customer*
 - How to find other parts for co development.*
- Deadline: October 2006*

Development of LCPM decision-making models and tools

Within this work area best practices for lifecycle- and portfolio management within NRENs will be developed.

Coordinator – Walter van Dijk (SURFnet)

Deliverables

- 1. LCPM White paper*

Editor: Walter van Dijk (SURFnet)
A document that explains the ratio for lifecycle- and portfolio management within NRENs
Deadline: April 2006
- 2. Overview of best practices for LCPM-models within NRENs*

Editor: open
An overview of best practices for LCPM-models within NRENs
Deadline: October 2006

3. Off-the-shelf model for LCPM processes

Editor: open

A document that outlines an "off the shelf" model for LCPM processes.

Deadline: April 2007

Draft Terms of Reference for TF-LCPM

The above list of deliverables and associated activity leaders will be circulated to the LCPM email distribution list for update and confirmation. When agreed it will be appended to the draft Terms of Reference which in themselves are being updated to reflect recent changes. The completed document will be submitted to the TERENA Executive Committee scheduled for 16 December 2005.

Provisional Dates and Locations of Future Meetings 2006

TF-LCPM 01	Thursday 9 March 2006	Prague, Czech Republic (after the CESNET conference 6–8 March)
TF-LCPM 02	Sunday 14 May 2006	TNC, Catania, Italy
TF-LCPM 03	Autumn 2006	Madrid offered by RED.ES/RedIRIS, ES

The LCPM web-pages can be found at:

<http://www.terena.nl/lcpm>

Workshop Attendees

Alberto Perez, RED.ES/RedIRIS, ES
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Federica Tanlongo, GARR, IT
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